



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,287	02/20/2004	Ricardo Te Lim	VP113	7613

20178 7590 10/07/2008
EPSON RESEARCH AND DEVELOPMENT INC
INTELLECTUAL PROPERTY DEPT
2580 ORCHARD PARKWAY, SUITE 225
SAN JOSE, CA 95131

EXAMINER

HASSAN, AURANGZEB

ART UNIT	PAPER NUMBER
----------	--------------

2182

MAIL DATE	DELIVERY MODE
-----------	---------------

10/07/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/783,287

Applicant(s)

LIM ET AL.

Examiner

AURANGZEB HASSAN

Art Unit

2182

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 5, 9 and 13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 5, 9 and 13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 5, 9 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goodwin et al. (US Patent Number 5,371,870 hereinafter "Goodwin") in view of Matsubara (US Patent Number 6,144,613).

3. As per claims 1, 5, 9, and 13, Goodwin teaches a method, apparatus, medium, and system for accessing a FIFO memory (FIFO, column 2, lines 47 – 67) from a CPU comprising: receiving one read or write request from the CPU, the read or write request specifying an address (memory requests by CPU for sequential locations within a range, column 4, lines 3 – 38);

determining if the address is within the range of multiple addresses (it is determined whether the memory references are available in the buffer and then checked from the memory, it is already set that the request is within a range of address, column 4, lines 39 – 67, column 5, lines 1 – 8); and

causing the FIFO memory to be accessed whenever the address is within the range of multiple addresses (memory request cache handling further elaborated in

column 5, lines 9 - 61), the FIFO memory being identified (memory 18 is direct mapped such that only one cache location is available for a given index number, column 5, lines 1 - 8) by and accessible addresses (when subsequent request corresponds to a sequential address deemed a stream, column 4, lines 3 - 38), and reading from or writing to the FIFO memory (read and write requests seen in figure 2) a plurality of times through the single address in response to the one read or write request from the CPU (successive reads, column 10, lines 46 - 58).

Goodwin does not explicitly teach accessing multiple addresses through a single address.

Matsubara teaches a method, apparatus, medium and system for accessing memory whenever an address is within a range of multiple address, the memory being identified by and accessible only through a single address (column 1, lines 17 - 21).

It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the teachings of Goodwin with the above teachings of Matsubara. One of ordinary skill would be motivated to make such modification in order to enhance high speed data transfer (column 1, lines 11 - 15).

Response to Arguments

4. Applicant's arguments, see page 1, filed 6/25/2008, with respect to the rejection(s) of claim(s) 1, 5, 9 and 13 under 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Matsubara.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to AURANGZEB HASSAN whose telephone number is (571)272-8625. The examiner can normally be reached on Monday - Friday 9 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (571)272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Art Unit: 2182

/Henry W.H. Tsai/

Supervisory Patent Examiner, Art Unit 2184